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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,982	07/14/2003	David So	11385-3-999	7807

20583 7590 10/28/2004

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EXAMINER	
RODRIGUEZ, RUTH C	

ART UNIT	PAPER NUMBER
3677	

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/619,982	SO, DAVID	
	Examiner	Art Unit	
	Ruth C Rodriguez	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09122003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12 September 2003 is being considered by the examiner for this Office Action.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: H. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the at least one of the lower girdle facets being rotated such that the at least one lower girdle facet is not tangent to a circumference about the stone must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 8, 9, 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 8 and 19 recite a limitation stating "wherein at least one of said lower girdle facets is rotated so that said at least one lower girdle facet is not tangent to a circumference about said stone." It is unclear how the rotated lower girdle facet will not be tangent to the circumference about the stone. For purpose of examination, the Examiner is assuming that the rotated lower girdle facet being rotated will not be in the same plane as the other two lower girdle facets and that the rotated lower girdle facet will be at an angle with respect to the other two lower girdle facets.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 2, 8-15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Fine (US D141,259).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 1-3). A plurality of pavilion main facets extends between the girdle and the culet and three lower girdle facets between each adjacent pair of the pavilion main facets (Figs. 1-3). The lower girdle facets each has a top side along the girdle and a lower vertex extending toward the culet (Figs. 1-3).

The crown disclosed by Fine has a table, a plurality of star facets encircling the table, a bezel facet between adjacent star facets and the girdle and three upper girdle facets between adjacent bezel facets (Figs. 1-3). The upper girdle facets each has a lower side along the girdle and an upper common vertex extending toward the table (Figs. 1-3).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 1-3). A plurality of pavilion main facets extends between the girdle and the culet (Figs. 1-3). Three lower girdle facets are between each adjacent pair of the pavilion main facets (Figs. 1-3). At

least one of the lower girdle facets is rotated so that the at least one lower girdle facet is not tangent to a circumference about the stone (Figs. 1-3).

Fine also disclose that a middle of the three lower girdle facets is the rotated lower girdle facet (Figs. 1-3).

A cut stone comprises a pavilion portion having a culet, a crown portion having a table with a predetermined number of sides and a girdle separating the pavilion portion from the crown portion (Figs. 1-3). Three upper girdle facets per side of the table and the upper girdle facets each has a bottom side along the girdle and an upper vertex extending toward the table (Figs. 1-3).

The stone disclose by Fine further comprises a plurality of pavilion main facets extending between the culet and the girdle (Figs. 1-3). Three lower girdle facets per side of the table on the pavilion portion between adjacent pairs of pavilion main facets (Figs. 1-3). The lower girdle facets each have a top side along the girdle and a lower vertex extending toward the culet (Figs. 1-3).

A method for cutting a stone comprises forming a pavilion portion having a culet, forming a crown portion having a table with a predetermined number of sides, forming a girdle separating the pavilion portion and the crown portion and forming three upper girdle facets per side of the table (Figs. 1-3). The upper girdle facets each has a bottom side along the girdle and an upper vertex extending toward the table (Figs. 1-3).

Fine also discloses that the method further comprises forming a plurality of pavilion main facets on the pavilion extending between the culet and the girdle and forming three lower girdle facets on the pavilion portion between adjacent pairs of

pavilion main facets (Figs. 1-3). The three lower girdle facets each having an upper side along the girdle and a vertex extending downward toward the culet (Figs. 1-3).

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion, forming a girdle separating the crown portion from the pavilion portion, forming a plurality of pavilion main facets on the pavilion portion between the culet and the girdle and forming three lower girdle facets between adjacent pavilion main facets on the pavilion portion (Figs. 1-3). The three lower girdle facets each having an upper side along the girdle and a lower vertex extending toward the culet (Figs. 1-3).

The method disclosed by Fine further comprises forming a table on the crown with a plurality of sides, forming a star facet extending from each side of the table, forming bezel facets between the star facets and forming three upper girdle facets on the crown portion (Figs. 1-3). The bezel facets each extend from a lower vertex at the girdle to an upper vertex at the table (Figs. 1-3). The upper girdle facets extend to a common vertex on an upper portion of the crown and each having a lower side along the girdle (Figs. 1-3).

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion including a culet, forming a girdle separating the crown portion from the pavilion portion and forming a lower girdle facet on the pavilion portion rotated not to be tangent to a general circumference of the stone (Figs. 1-3).

Fine also discloses that the method further comprises forming multiple lower girdle facets on the pavilion portion rotated to not be tangent to the general circumference of the stone (Figs. 1-3).

8. Claims 1, 2, 8-15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Westreich (US D204,199).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 1-3). A plurality of pavilion main facets extends between the girdle and the culet and three lower girdle facets between each adjacent pair of the pavilion main facets (Figs. 1-3). The lower girdle facets each has a top side along the girdle and a lower vertex extending toward the culet (Figs. 1-3).

The crown disclosed by Westreich has a table, a plurality of star facets encircling the table, a bezel facet between adjacent star facets and the girdle and three upper girdle facets between adjacent bezel facets (Figs. 1-3). The upper girdle facets each has a lower side along the girdle and an upper common vertex extending toward the table (Figs. 1-3).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 1-3). A plurality of pavilion main facets extends between the girdle and the culet (Figs. 1-3). Three lower girdle facets are between each adjacent pair of the pavilion main facets (Figs. 1-3). At least one of the lower girdle facets is rotated so that the at least one lower girdle facet is not tangent to a circumference about the stone (Figs. 1-3).

Westreich also disclose that a middle of the three lower girdle facets is the rotated lower girdle facet (Figs. 1-3).

A cut stone comprises a pavilion portion having a culet, a crown portion having a table with a predetermined number of sides and a girdle separating the pavilion portion from the crown portion (Figs. 1-3). Three upper girdle facets per side of the table and the upper girdle facets each has a bottom side along the girdle and an upper vertex extending toward the table (Figs. 1-3).

The stone disclosed by Westreich further comprises a plurality of pavilion main facets extending between the culet and the girdle (Figs. 1-3). Three lower girdle facets per side of the table on the pavilion portion between adjacent pairs of pavilion main facets (Figs. 1-3). The lower girdle facets each have a top side along the girdle and a lower vertex extending toward the culet (Figs. 1-3).

A method for cutting a stone comprises forming a pavilion portion having a culet, forming a crown portion having a table with a predetermined number of sides, forming a girdle separating the pavilion portion and the crown portion and forming three upper girdle facets per side of the table (Figs. 1-3). The upper girdle facets each has a bottom side along the girdle and an upper vertex extending toward the table (Figs. 1-3).

Westreich also disclose that the method further comprises forming a plurality of pavilion main facets on the pavilion extending between the culet and the girdle and forming three lower girdle facets on the pavilion portion between adjacent pairs of pavilion main facets (Figs. 1-3). The three lower girdle facets each having an upper side along the girdle and a vertex extending downward toward the culet (Figs. 1-3).

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion, forming a girdle separating the crown portion from the pavilion portion,

forming a plurality of pavilion main facets on the pavilion portion between the culet and the girdle and forming three lower girdle facets between adjacent pavilion main facets on the pavilion portion (Figs. 1-3). The three lower girdle facets each having an upper side along the girdle and a lower vertex extending toward the culet (Figs. 1-3).

The method disclosed by Westreich further comprises forming a table on the crown with a plurality of sides, forming a star facet extending from each side of the table, forming bezel facets between the star facets and forming three upper girdle facets on the crown portion (Figs. 1-3). The bezel facets each extend from a lower vertex at the girdle to an upper vertex at the table (Figs. 1-3). The upper girdle facets extend to a common vertex on an upper portion of the crown and each having a lower side along the girdle (Figs. 1-3).

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion including a culet, forming a girdle separating the crown portion from the pavilion portion and forming a lower girdle facet on the pavilion portion rotated not to be tangent to a general circumference of the stone (Figs. 1-3).

Westreich also disclose that the method further comprises forming multiple lower girdle facets on the pavilion portion rotated to not be tangent to the general circumference of the stone (Figs. 1-3).

9. Claims 3-7 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Itzkowitz (US 5,713,219).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 2c, 3c and 4c). A

plurality of pavilion main facets extends from near the culet toward the girdle (Figs. 3c and 4c). The pavilion main facets vary in width (Figs. 3c and 4c).

Itzkowitz also discloses that:

- The pavilion main facets alternate in a clockwise direction between thick pavilion main facets and thin pavilion main facets.
- The thick pavilion main facets are at least about 30 percent thicker than the thin pavilion main facets and wherein the thick pavilion main facets are at most about 60 percent thicker than the thin pavilion main facets.
- The stone further comprises a table on the crown (Fig. 2c). The table has a plurality of sides and the plurality of pavilion main facets equals the number of sides of the table (Figs. 2c, 3c and 4c).
- The stone further comprises a table on the crown with a plurality of bezel facets on the crown (Fig. 2c). The bezel facets each has an upper vertex at the table and a lower vertex at the girdle (Fig. 2c). The pavilion main facets terminate in an upper vertex at the girdle in substantial alignment with the lower vertex of a corresponding bezel facet of the crown (Figs. 2c and 4c).

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion including a culet, forming a girdle separating the crown portion from the pavilion portion and forming a plurality of pavilion main facets on the pavilion portion (Figs. 2c, 3c and 4c). The pavilion main facets vary in thickness (Figs. 2c, 3c and 4c).

The method disclosed by Itzkowitz further comprises forming the pavilion main facets with thicknesses alternating between thick pavilion main facets and thin pavilion main facets (Figs. 2c, 3c and 4c).

Itzkowitz also discloses that the thick pavilion main facets are at least about 30 percent thicker than the thin pavilion main facets and at most about 60 percent thicker than the thin pavilion main facets (Fig. 3c).

10. Claims 3-5, 7 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Fajerstein (US D437,671 S).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 5-15). A plurality of pavilion main facets extends from near the culet toward the girdle (Figs. 5-15). The pavilion main facets vary in width (Figs. 5-15).

Fajerstein also discloses that:

- The pavilion main facets alternate in a clockwise direction between thick pavilion main facets and thin pavilion main facets (Figs. 5-9).
- The thick pavilion main facets are at least about 30 percent thicker than the thin pavilion main facets and wherein the thick pavilion main facets are at most about 60 percent thicker than the thin pavilion main facets (Figs. 5-9).
- The stone further comprises a table on the crown with a plurality of bezel facets on the crown (Figs. 5-15). The bezel facets each has an upper vertex at the table and a lower vertex at the girdle (Figs. 5-15). The pavilion main facets terminate in

an upper vertex at the girdle in substantial alignment with the lower vertex of a corresponding bezel facet of the crown (Figs. 5-15).

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion including a culet, forming a girdle separating the crown portion from the pavilion portion and forming a plurality of pavilion main facets on the pavilion portion (Figs. 5-15). The pavilion main facets vary in thickness (Figs. 5-15).

The method disclosed by Fajerstein further comprises forming the pavilion main facets with thicknesses alternating between thick pavilion main facets and thin pavilion main facets (Figs. 5-9).

Fajerstein also discloses that the thick pavilion main facets are at least about 30 percent thicker than the thin pavilion main facets and at most about 60 percent thicker than the thin pavilion main facets (Figs. 5-9).

11. Claims 3-6 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Markowitz (US 6,668,585 B1).

A cut stone comprises a pavilion portion having a culet, a crown portion and a girdle separating the pavilion portion from the crown portion (Figs. 2-4). A plurality of pavilion main facets extends from near the culet toward the girdle (Figs. 2-4). The pavilion main facets vary in width (Figs. 2-4).

Markowitz also discloses in Figs. 2-4 that:

- The pavilion main facets alternate in a clockwise direction between thick pavilion main facets and thin pavilion main facets.

- The thick pavilion main facets are at least about 30 percent thicker than the thin pavilion main facets and wherein the thick pavilion main facets are at most about 60 percent thicker than the thin pavilion main facets.

- The stone further comprises a table on the crown. The table has a plurality of sides and the plurality of pavilion main facets equals the number of sides of the table.

A method for cutting a stone comprises forming a crown portion, forming a pavilion portion including a culet, forming a girdle separating the crown portion from the pavilion portion and forming a plurality of pavilion main facets on the pavilion portion (Figs. 2-4). The pavilion main facets vary in thickness (Figs. 2-4).

The method disclosed by Markowitz further comprises forming the pavilion main facets with thicknesses alternating between thick pavilion main facets and thin pavilion main facets (Figs. 2-4).

Markowitz also disclose that the thick pavilion main facets are at least about 30 percent thicker than the thin pavilion main facets and at most about 60 percent thicker than the thin pavilion main facets (Figs. 2-4).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kraus (US D59,234), Heller (US D140,283), Fine (US D141,258 and US D141,259), Westreich (US D204,199), Polakiewicz (US 3,763,665), Bachar (US D392,590), Itzkowitz (US 5,713,219), Fajerstein (US D437,671), Cheng (US D453,120), Tolkowsky (US D455,367), Rydlewicz (US D459,676), Kagaya (US D460,378), Cohen (US D460,711), Greeff (US D463,315), Tolkowsky (US D483,290), Markowitz (US 6,668,585) and Mehta (US D490,014) are cited to show state of the art with respect to cut stones having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C Rodriguez whose telephone number is (703) 308-1881. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (703) 306-4115.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase the patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as PTO's mailroom processing and delivery time. For a complete list of correspondence **not** permitted by facsimile transmission, see MPEP § 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee

to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee that the applicant is paying by check **should not be** submitted by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP § 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 872-9306) on __(Date)__.

_____

(Typed or printed name of person signing this certificate)

_____

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP § 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response has been transmitted by facsimile will cause further unnecessary delays in the processing of your application, duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

RCR
rcr
October 25, 2004

JJ Swann
Supervisory Patent Examiner
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